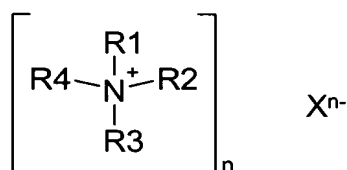


This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A composition for storing heat, comprising at least one heat storage material and at least one auxiliary for aiding heat transmission, wherein at least one of the at least one heat storage material has at least one solid/solid phase transition, ~~and~~ is solid throughout the application range, and comprises a dialkyl ammonium salt conforming to the empirical formula:



wherein each of R1 and R2 is, independently, C₁-C₃₀ alkyl or C₁-C₃₀ hydroxyalkyl, each of R3 and R4 is a radical H, and Xⁿ⁻ is a monoatomic, an organic or a complex inorganic anion, where n is the ionic charge of the anion.

3 - 10. (Canceled)

11. (Currently Amended) A composition for storing heat according to Claim ~~claim~~ 38, wherein the auxiliary comprises paraffin.

12. (Canceled)

13. (Previously Presented) A composition for storing heat according to Claim 39, wherein the composition is in the form of fibers, with the binder serving simultaneously as fiber base material.

14. **(Previously Presented)** A composition for storing heat according to Claim 39, wherein the composition is in the form of fibers, with a natural or synthetic fiber forming the basic structure of the fiber and the binder or binders together with the heat storage material forming a coating around this fiber.

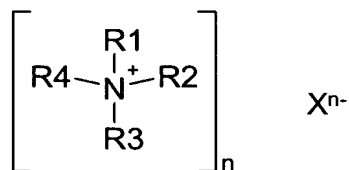
15. **(Previously Presented)** A composition for storing heat according to Claim 39, wherein the composition is in the form of a coating on a surface or around a textile fabric.

16 - 17. **(Canceled)**

18. **(Previously Presented)** A composition for storing heat according to Claim 39, wherein the binder comprises an inorganic binder comprising a water-insoluble silicate, a phosphate, a sulfate or a metal oxide.

19. **(Withdrawn)** A storage media for a latent heat storage system comprising a compound having at least one solid/solid phase transition.

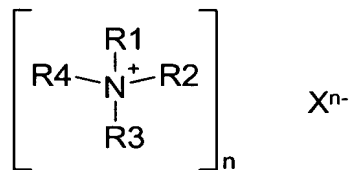
20. **(Withdrawn, Currently Amended)** A storage media according to Claim ~~claim~~ 19 wherein the compound has the formula:



wherein R1, R2, R3 and R4 are each, independently of one another, a radical H, C₁-C₃₀ alkyl or C₁-C₃₀ hydroxyalkyl and Xⁿ⁻ is a monoatomic, an organic, or a complex inorganic anion, wherein n results from the ionic charge of the anion.

21. (Withdrawn, Currently Amended) storing heat in a compound of the formula:

A thermostating process comprising



wherein R1, R2, R3 and R4 are each, independently of one another, a radical H, C₁-C₃₀ alkyl or C₁-C₃₀ hydroxyalkyl and Xⁿ⁻ is a monoatomic, an organic, or a complex inorganic anion, wherein n results from the ionic charge of the anion.

22. (Previously Presented) A foam comprising a composition according to Claim 41 for imparting thermostatic properties to clothing.

23. (Canceled)

24. (Currently Amended) A building comprising a composition according to Claim 18, in a manner so as to enable thermostating ~~for the thermostating~~.

25. (Currently Amended) A composition according to Claim 1 2 wherein Xⁿ⁻ is fluoride, chloride, bromide, iodide, nitrate, chlorate, perchlorate, sulfate, phosphate, tetrachlorochromate, tetrachloromanganate, tetrachlorocadmate, tetrachloropalladate, tetrachloroferrate, formate, acetate, propionate, butyrate, caprate, stearate, palmitate, acrylate, oleate, oxalate, malonate, succinate, glutarate, benzoate, 2-nitrobenzoate, salicylate or phenyl-acetate.

26. (Canceled)

27. (Currently Amended) A composition according to Claim 1 ~~[[4]]~~ wherein R1 and R2 have identical carbon chain lengths ~~and R3 and R4 are hydrogen~~.

28. (Previously Presented) A composition according to Claim 34 wherein the one heat storage material comprises dioctylammonium chloride, didecylammonium chloride, didodecylammonium chloride, dioctadecylammonium chloride, dihexylammonium bromide, didecylammonium bromide, didodecylammonium bromide, dioctadecylammonium bromide, dihexylammonium nitrate, dioctylammonium nitrate, didecylammonium nitrate, dioctylammonium chlorate, dioctylammonium acetate, dioctylammonium formate, didecylammonium chlorate, didecylammonium acetate, didecylammonium formate, didodecylammonium chlorate, didodecylammonium formate, didodecylammonium hydrogensulfate, didodecylammonium propionate, dibutylammonium-2-nitrobenzoate, or didodecylammonium nitrate.

29. (Currently Amended) A composition according to Claim ~~39~~ 38 wherein the auxiliary comprises a metal powder or a metal granule or graphite, wherein the heat storage material is mixed with the auxiliary.

30. (Previously Presented) A composition according to Claim 39 wherein the polymeric binder is a polyurethane, a nitrile rubber, chloroprene, polyvinyl chloride, a silicone, an ethylene-vinyl acetate copolymer or a polyacrylate.

31. (Currently Amended) A composition according to Claim 1 2, wherein X^{n-} is an organic ion.

32. (Currently Amended) A composition for storing heat according to Claim ~~claim~~ 1, wherein one heat storage material comprises a compound wherein its low-temperature form crystallizes in a sheetlike perovskite type.

33. (Currently Amended) A composition for storing heat according to Claim 1 2, wherein one heat storage material comprises mixed crystals of different dialkylammonium salts.

34. (Currently Amended) A composition for storing heat according to Claim 1 2, wherein one heat storage material comprises diethylammonium chloride, dipropylammonium chloride, dibutylammonium chloride, dipentylammonium chloride, dihexylammonium chloride, dioctylammonium chloride, didecylammonium chloride, didodecylammonium chloride, dioctadecylammonium chloride, diethylammonium bromide, dipropylammonium bromide, dibutylammonium bromide, dipentylammonium bromide, dihexylammonium bromide, dioctylammonium bromide, didecylammonium bromide, didodecylammonium bromide, dioctadecylammonium bromide, diethylammonium nitrate, dipropylammonium nitrate, dibutylammonium nitrate, dipentylammonium nitrate, dihexylammonium nitrate, dioctylammonium nitrate, didecylammonium nitrate, diundecylammonium nitrate, didodecylammonium nitrate, dioctylammonium chlorate, dioctylammonium acetate, dioctylammonium formate, didecylammonium chlorate, didecylammonium acetate, didecylammonium formate, didodecylammonium chlorate, didodecylammonium formate, didodecylammonium hydrogensulfate, didodecylammonium propionate, or dibutylammonium-2-nitrobenzoate.

35. (Previously Presented) A composition for storing heat according to Claim 1, wherein the heat storage material has an average crystallite size of about 0.1 to about 1000 μm , and the material is insoluble in water.

36. (Previously Presented) A composition for storing heat according to Claim 1, wherein the application range of the heat storage material has a solid/solid phase transition which has an enthalpy of at least about 50 J/g.

37. (Previously Presented) A composition for storing heat according to Claim 1, wherein the application range of the heat storage material has a solid/solid phase transition which lies within the temperature range of about -100°C – about 150°C .

38. (Previously Presented) A composition for storing heat according to Claim 1, wherein the at least one auxiliary comprises a substance or preparation having good thermal conductivity in the form of a loose bed or in the form of shaped bodies.

39. (Previously Presented) A composition for storing heat according to Claim 1, wherein the at least one auxiliary comprises a binder finely distributed with the crystallites of the heat storage material.

40. (Previously Presented) A composition for storing heat according to Claim 39, wherein the polymeric binder is a curable polymer or polymer precursor polyurethane, a nitrile rubber, chloroprene, polyvinyl chloride, a silicone, an ethylene-vinyl acetate copolymer or a polyacrylate.

41. (Previously Presented) A composition for storing heat according to Claim 1, wherein the composition is present in the form of an open-celled or closed-celled foam, with the auxiliary.

42. (Previously Presented) A device for cooling an electronic component comprising a composition according to Claim 38.

43. (Currently Amended) A composition according to Claim ~~claim~~ 1, wherein the heat storage material has an average crystallite size of about 0.1 - about 1000 μm .

44. (Canceled)